Title (en)

WAVELENGTH-SPECIFIC PHOTONIC DEVICE FOR WAVELENGTH DIVISION MULTIPLEXED FIBER OPTIC NETWORKS BASED ON SAMPLED BRAGG GRATINGS IN WAVEGUIDE MACH-ZEHNDER INTERFEROMETER

Title (de)

WELLENLÄNGENSPEZIFISCHE PHOTONISCHE VORRICHTUNG FÜR FASER-OPTISCHE WELLENLÄNGENMULTIPLEX-NETZWERKE AUF DER BASIS VON IN ABSCHNITTEN ZERLEGTEN BRAGG-GITTERN IN WELLENLEITER IN EINEM MACH-ZEHNDER INTERFEROMETER

Title (fr)

DISPOSITIF PHOTONIQUE SPECIFIQUE DE LONGUEURS D'ONDES POUR RESEAUX A FIBRES OPTIQUES MULTIPLEXES EN LONGUEUR D'ONDES, BASES SUR DES RESEAUX DE BRAGG ECHANTILLONNES DANS UN INTERFEROMETRE DE MACH-ZEHNDER EN GUIDE D'ONDES

Publication

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Application

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Priority

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Abstract (en)

[origin: WO9942899A1] Disclosed is a wavelength-specific photonic device which utilizes sampled Bragg gratings positioned within arms of a waveguide Mach-Zehnder interferometer capable to add optical data signals to or separate optical data signals from multiple signals supplied to the photonic device by a fiber optic cable and to perform other wavelength-specific functions with signals. The wavelength-specific photonic device can resolve optical data signals having a channel spacing of less than 0.8 nm if desired, yet the device can be made to be specific for any wavelength in a communication bandwidth using photolithographic tools available in the electronics industry to fabricate the sampled Bragg gratings. The device is particularly useful in DWDM applications, where many signals with different wavelength within communication bandwidth are supplied through the same fiber optic cable. The device is particularly useful in the waveguides with intrinsic birefringence.

IPC 1-7

G02F 1/225; G02B 6/12

IPC 8 full level

G02B 6/12 (2006.01); **G02B 6/122** (2006.01); G02B 6/34 (2006.01); G02F 1/21 (2006.01)

CPC (source: EP)

G02B 6/12007 (2013.01); **G02B 6/1221** (2013.01); **G02B 6/29353** (2013.01); G02B 2006/12107 (2013.01); G02B 2006/12159 (2013.01); G02B 2006/12164 (2013.01); G02F 1/212 (2021.01); G02F 2201/307 (2013.01); G02F 2202/022 (2013.01)

Citation (search report)

See references of WO 9942899A1

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